FIG.1 Prior Art

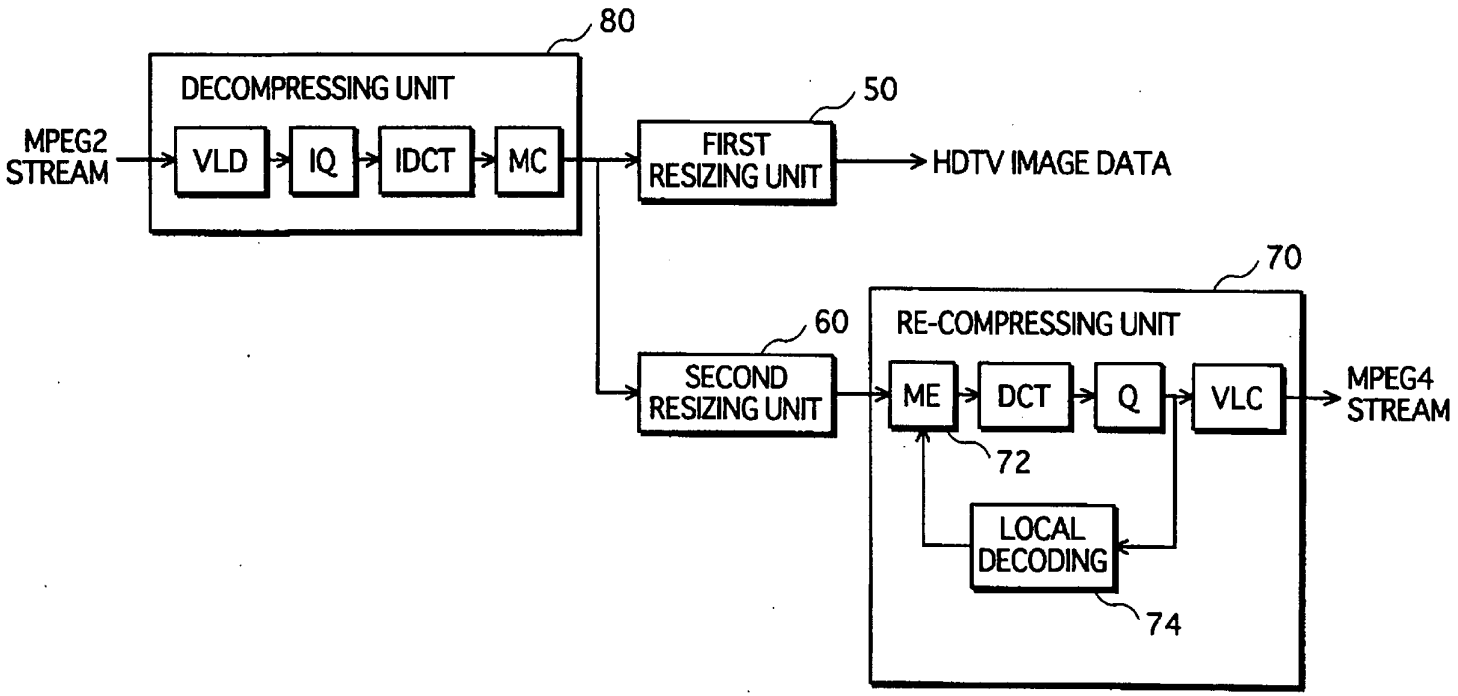


FIG.2

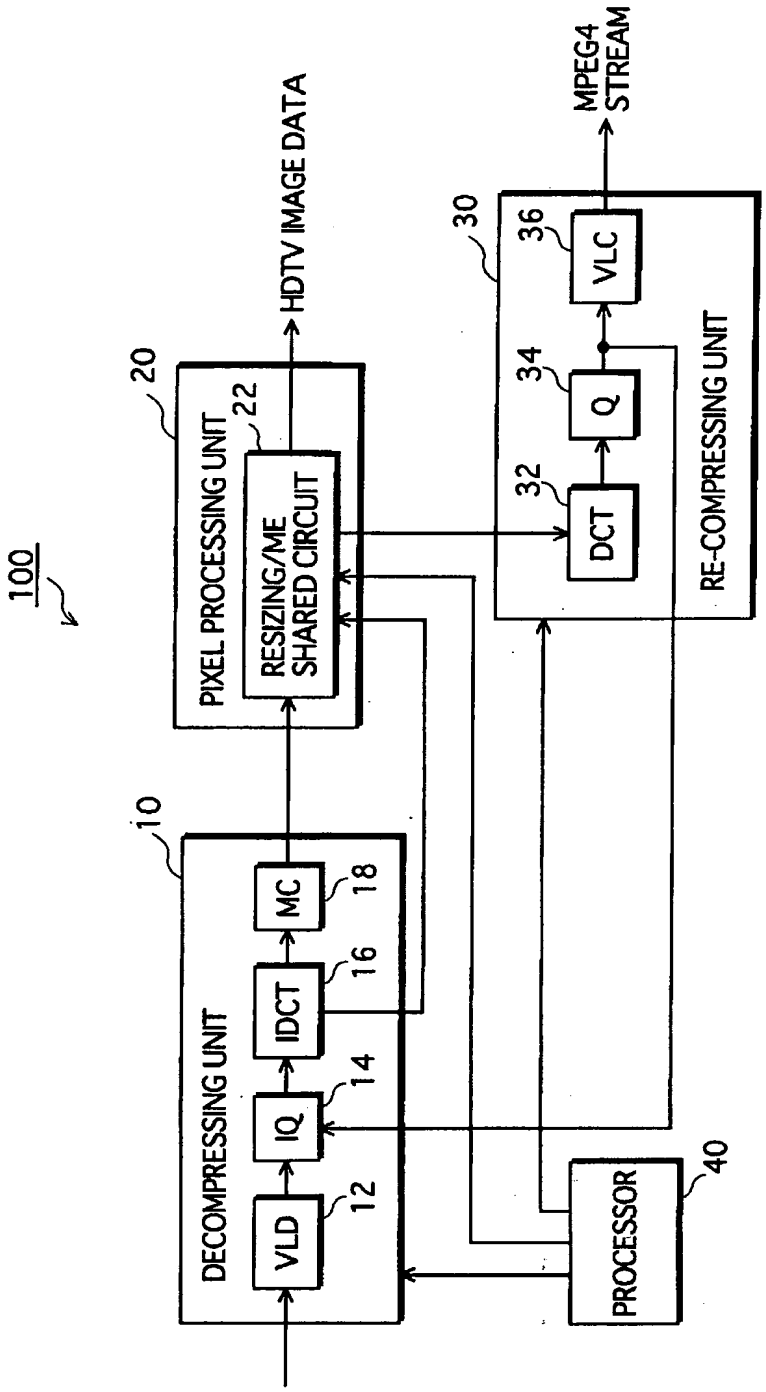

100
10
DECOMPRESSING UNIT
VLD
12
IQ
14
IDCT
16
MC
18
20
PIXEL PROCESSING UNIT
22
RESIZING/ME SHARED CIRCUIT
HDTV IMAGE DATA
30
RE-COMPRESSING UNIT
32
DCT
34
Q
36
VLC
MPEG4 STREAM
40
PROCESSOR

FIG.3

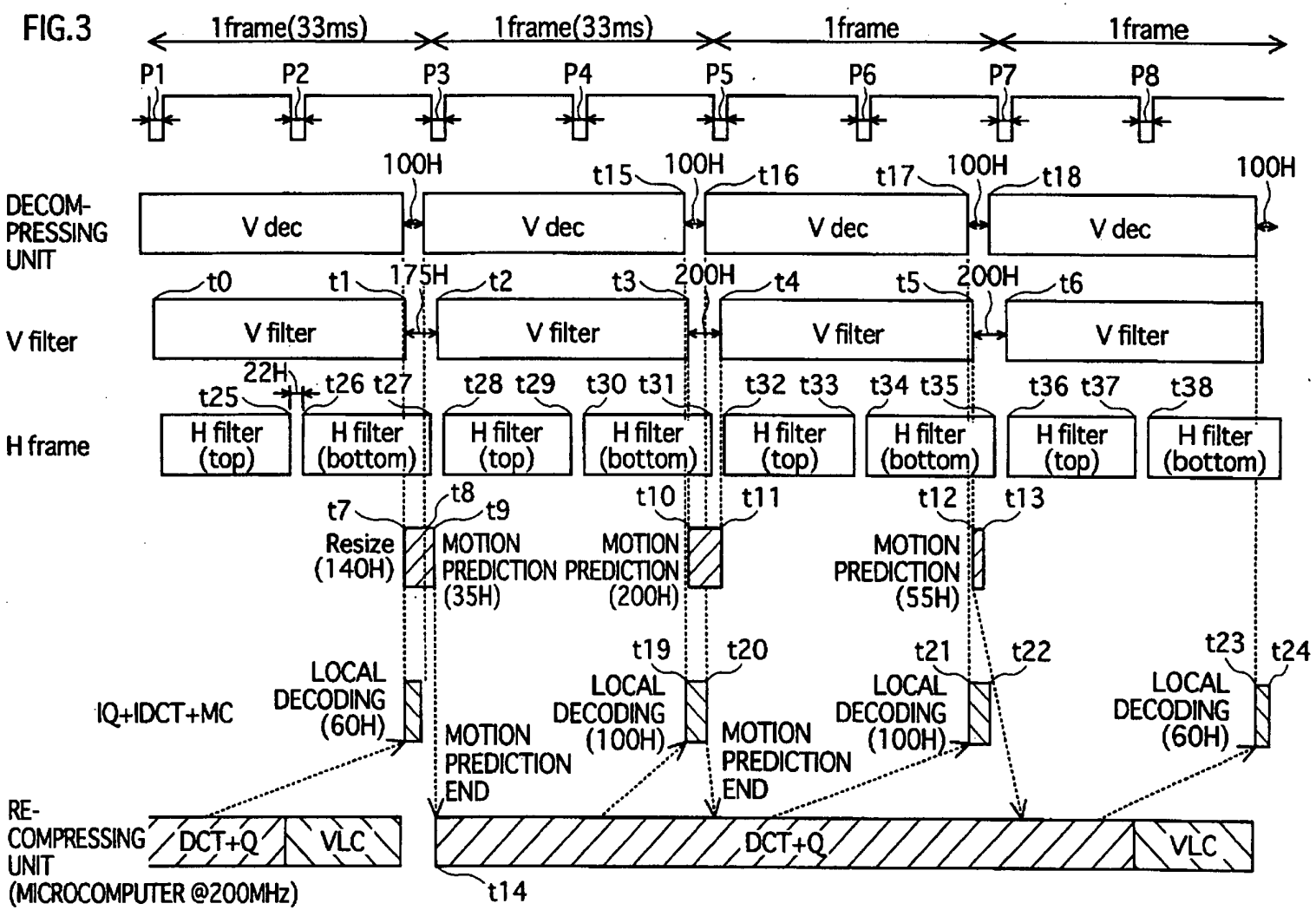
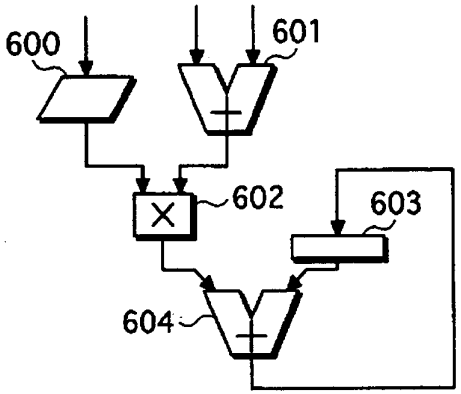
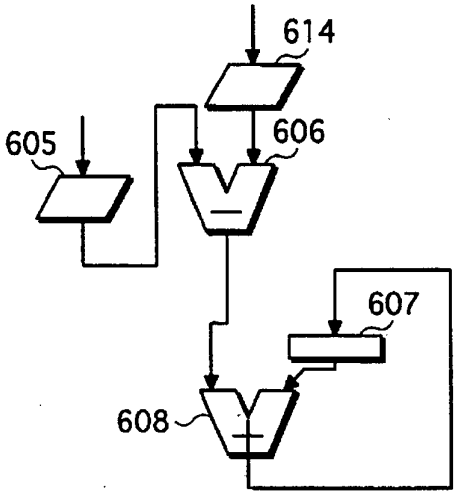

1frame(33ms)
1frame(33ms)
1frame
1frame
P1
P2
P3
P4
P5
P6
P7
P8
DECOM-PRESSING UNIT
V dec
V filter
H frame
H filter (top)
H filter (bottom)
100H
175H
200H
22H
t0
t1
t2
t3
t4
t5
t6
t7
t8
t9
t10
t11
t12
t13
t15
t16
t17
t18
t19
t20
t21
t22
t23
t24
t25
t26
t27
t28
t29
t30
t31
t32
t33
t34
t35
t36
t37
t38
Resize (140H)
MOTION PREDICTION (35H)
MOTION PREDICTION (200H)
MOTION PREDICTION (55H)
IQ+IDCT+MC
LOCAL DECODING (60H)
LOCAL DECODING (100H)
MOTION PREDICTION END
RE-COMPRESSING UNIT (MICROCOMPUTER @200MHz)
DCT+Q
VLC
t14

FIG.4A



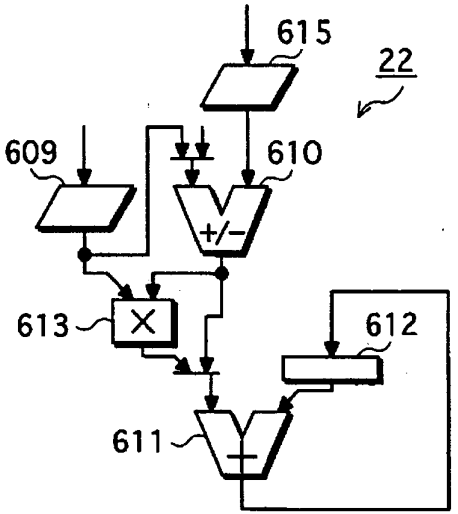
RESIZING CIRCUIT

FIG.4B



MOTION PREDICTION CIRCUIT

FIG.4C



RESIZING/ME SHARED CIRCUIT